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MUNC18 Polyclonal Antibody

Catalog Number **PA1-742**

Product data sheet

Details	
Size	100 µg
Host/Isotope	Rabbit / IgG
Class	Polyclonal
Type	Antibody
Immunogen	Synthetic Peptide: V(58) E D I N K R R E P I P S(70)
Conjugate	Unconjugated
Form	Liquid
Concentration	1 mg/mL
Purification	Antigen affinity chromatography
Storage buffer	PBS with 1mg/mL BSA
Contains	0.05% sodium azide
Storage Conditions	-20° C, Avoid Freeze/Thaw Cycles

Species Reactivity	
Species reactivity	Human, Mouse, Rat
Published species	Dog, Rat, Mouse, Not Applicable

Tested Applications	Dilution *
Immunohistochemistry (Frozen) (IHC (F))	Assay-dependent
Immunoprecipitation (IP)	Assay-dependent
Western Blot (WB)	1:1,000
Immunocytochemistry (ICC/IF)	2 µg/mL

Published Applications	
Western Blot (WB)	See 2 publications below
Immunoprecipitation (IP)	See 1 publications below
Immunohistochemistry (IHC)	See 1 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Product specific information

PA1-742 detects Munc-18 from human, rat and mouse tissues. PA1-742 has been successfully used in Western blot, immunohistochemistry, and immunoprecipitation procedures. By Western blot, this antibody detects an ~67 kDa protein representing Munc-18 from rat and mouse whole brain extract. PA1-742 immunizing peptide corresponds to amino acid residues 58-70 from human Munc-18. This sequence is completely conserved between human, mouse, rat, bovine, and canine Munc-18. PA1-742 immunizing peptide (Cat. # PEP-067) is available for use in neutralization and control experiments.

Background/Target Information

This gene encodes a syntaxin-binding protein. The encoded protein appears to play a role in release of neurotransmitters via regulation of syntaxin, a transmembrane attachment protein receptor. Mutations in this gene have been associated with infantile epileptic encephalopathy-4. Alternatively spliced transcript variants have been described.

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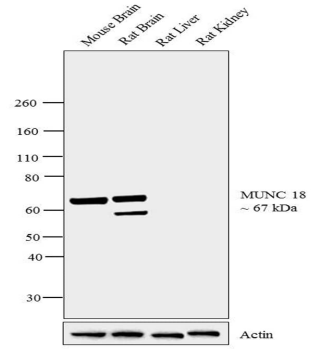
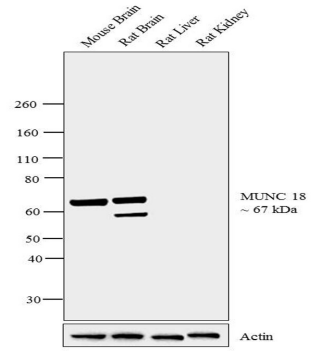
Product Images For MUNC18 Polyclonal Antibody



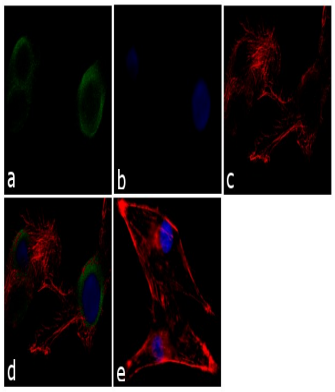
MUNC18 Antibody (PA1-742)

Antibody specificity was demonstrated by detection of differential basal expression of the target across tissue models owing to their inherent genetic constitution. Relative expression of MUNC18 was observed in Mouse Brain, Rat Brain, Rat Liver and Rat Kidney in Western Blot using MUNC18 Polyclonal Antibody (Product # PA1-742). MUNC18 is reported to be expressed in brain tissue and not in other tissues like liver and kidney. {RE}



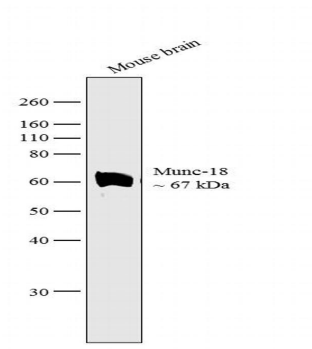
MUNC18 Antibody (PA1-742) in WB

Western blot analysis was performed on tissue extracts (30 µg lysate) of Mouse Brain (Lane 1), Rat Brain (Lane 2), Rat Liver (Lane 3) and Rat Kidney (Lane 4). The blot was probed with Anti- MUNC18 Rabbit Polyclonal Antibody (Product # PA1-742, 2 µg/mL) and detected by chemiluminescence using Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, HRP conjugate (Product # A27036, 0.25 µg/mL, 1:4000 dilution). A 67 kDa band corresponding to MUNC18 was observed in Mouse Brain, Rat Brain and not observed in other tissues which are documented to be MUNC18 negative.



MUNC18 Antibody (PA1-742) in ICC/IF

Immunofluorescence analysis of MUNC18 was performed using 70% confluent log phase U-87 MG cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with MUNC18 Rabbit Polyclonal Antibody (Product # PA1-742) at 2µg/mL in 0.1% BSA and incubated for 3 hours at room temperature and then labeled with Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A27034) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor® 555 Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing cytoplasmic localization. Panel e shows the no primary antibody control. The images were captured at 60X magnification.



MUNC18 Antibody (PA1-742) in WB

Western blot analysis was performed on tissue extract of mouse brain (30 µg lysate) (Lane 1). The blots were probed with Anti-MUNC18 Rabbit Polyclonal Antibody (Product # PA1-742, 2 µg/mL) and detected by chemiluminescence using Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, HRP conjugate (Product # A27036, 0.25 µg/mL, 1:4000 dilution). A 67 kDa band corresponding to MUNC18 was observed in the tissue extract tested. Known quantity of protein samples were electrophoresed using Novex® NuPAGE® 4-12 % Bis-Tris gel (Product # NP0321BOX), XCell SureLock™ Electrophoresis System (Product # EI0002) and Novex® Sharp Pre-Stained Protein Standard (Product # LC5800). Resolved proteins were then transferred onto a nitrocellulose membrane with iBlot® 2 Dry Blotting System (Product # IB21001). The membrane was probed with the relevant primary and secondary Antibody following blocking with 5 % skimmed milk. Chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate (Product # 32106).

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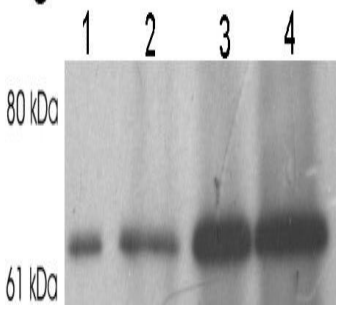
Fig. 1



MUNC18 Antibody (PA1-742) in WB

Western blot of Munc-18 in rat brain homogenate immunoprecipitated with Product # PA1-742. 1. Extract only. 2-4. 750 µg of extract immunoprecipitated with 1 ug, 5 ug, and 10 µg of Product # PA1-742, respectively.

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PubMed References For MUNC18 Polyclonal Antibody

2 Western Blot References

Species / Dilution	Summary
Rat / Not Cited	PA1-742 was used in western blot to investigate the interaction between Munc-18 isoforms with syntaxin isoforms The Journal of biological chemistry (1995; 270: 13022) **"A novel ubiquitous form of Munc-18 interacts with multiple syntaxins. Use of the yeast two-hybrid system to study interactions between proteins involved in membrane traffic."** Author(s):Hata Y,Südhof TC PubMed Article URL:http://dx.doi.org/10.1074/jbc.270.22.13022
Rat / 1:7500	PA1-742 was used in western blot to study the role of neuroinflammation in the degeneration of nigrostriatal dopaminergic neurons The Journal of neuroscience : the official journal of the Society for Neuroscience (2010; 30: 16091) **"The Toll-like receptor-3 agonist polyinosinic:polycytidylic acid triggers nigrostriatal dopaminergic degeneration."** Author(s):Deleidi M,Hallett PJ,Koprich JB,Chung CY,Isacson O PubMed Article URL:http://dx.doi.org/10.1523/JNEUROSCI.2400-10.2010

1 Immunoprecipitation References

Species / Dilution	Summary
Dog / Not Cited	PA1-742 was used in immunoprecipitation to investigate the role of the apical targeting of syntaxin 3 for epithelial cell polarity. The Journal of cell biology (2006; 173: 937) **"Apical targeting of syntaxin 3 is essential for epithelial cell polarity."** Author(s):Sharma N,Low SH,Misra S,Pallavi B,Weimbs T PubMed Article URL:http://dx.doi.org/10.1083/jcb.200603132

1 Immunohistochemistry References

Species / Dilution	Summary
Mouse / Not Cited	PA1-742 was used in immunohistochemistry to study the role of Munc18c in GLUT4 translocation in skeletal muscle. The Journal of biological chemistry (2001; 276: 4063) **"Munc18c regulates insulin-stimulated glut4 translocation to the transverse tubules in skeletal muscle."** Author(s):Khan AH,Thurmond DC,Yang C,Ceresa BP,Sigmund CD,Pessin JE PubMed Article URL:http://dx.doi.org/10.1074/jbc.M007419200

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